



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,826	09/16/2003	Richard R. Roesler	PO-7938/MD-99-48	2668
157	7590	06/27/2006		
BAYER MATERIAL SCIENCE LLC 100 BAYER ROAD PITTSBURGH, PA 15205			EXAMINER SERGENT, RABON A	
			ART UNIT	PAPER NUMBER

1711

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/663,826

Applicant(s)

ROESLER ET AL.

Examiner

Rabon Sergeant

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 1711

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 7, 2006 has been entered.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Squiller et al. ('204 or '704) or Roesler ('195), each in view of Cai ('405) and Mormile et al. ('086).

The primary references disclose aldimine/aspartate compounds, their production, and their use within polyisocyanate based polymeric systems, such as coatings and isocyanate addition products (prepolymers). The aldimine/aspartate compounds are produced by reacting

Art Unit: 1711

excess primary amine groups remaining on the aspartate with aldehyde. See abstracts and columns 2-9 within Squiller et al. See abstract and columns 1-5 within Roesler.

4. Though the primary references are silent regarding the incorporation of ketimine groups, as opposed to aldimine groups, into the aspartate, the following positions are taken. Firstly, the position is taken that ketimine groups were known to be compatible with aspartates within polyisocyanate based polymeric systems. This position is supported by the teachings of Cai (see abstract) and Mormile et al. (see abstract and column 6, lines 63-66). Secondly, the position is taken that both aldimine and ketimine were known to have similar, if not equivalent, utilities as curatives within polyisocyanate based polymeric systems. This position is supported by the teachings of Mormile et al. (see abstract). Therefore, in view of these positions and the structural and chemical similarities of aldimine and ketimine, the position is ultimately taken that it would have been *prima facie* obvious to substitute ketimine groups for the aldimine groups of the aspartates of the primary references.

5. The examiner has considered applicants' response and the 37 CFR 1.132 declaration, filed June 7, 2006; however, the response is insufficient to overcome the prior art rejection. In light of the teachings within the secondary references concerning the use of aldimines or ketimines as curatives for polyisocyanate systems, including low VOC coating systems, applicants' arguments simply fail to establish that the substitution of ketimine groups for aldimine groups within the primary reference would not have been obvious. Applicants' arguments fail to refute the fact that both Cai and Mormile et al. teach the suitability of using ketimines or aldimines in polyisocyanate-based systems, such as low-VOC coating systems, and, in effect, establish their equivalency in terms of functioning as curatives. See column 4, lines

Art Unit: 1711

42+ within Cai. See abstract of Mormile et al. Applicants have argued that one of ordinary skill in the art would conclude from the teachings within the secondary references that ketimines are undesirable if VOC is to be minimized. The examiner has reviewed the secondary references and cannot agree with applicants' assessment of the prior art. As aforementioned, the position is taken that one of ordinary skill would conclude from the prior art that either aldimines or ketimines are suitable curatives for the disclosed coatings, wherein such coatings are sought to be and preferred to be low VOC. Applicants' arguments and, specifically, their declaration fail to set forth an adequate or convincing showing of unexpected results, in that examples have not been set forth that are commensurate in scope with the claims and comparative examples have not been set forth that are representative of the prior art. Furthermore, it is not seen that the declaration conclusively establishes that low-VOC coatings, as they are understood within the art, cannot be obtained using ketimines and the methods of the prior art. In summation, the evidence of obviousness is considered to far outweigh the evidence of non-obviousness.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

R. Sergent  
June 21, 2006



**RABON SERGENT**  
**PRIMARY EXAMINER**